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Title : Social organization of Risso's dolphins, *Grampus griseus*, in coastal waters of central-eastern Taiwan

Category : Ecology

Student : M.A./M.S.

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Abstract : In order to understand the social organization of Risso's dolphins (*Grampus griseus*) in the central-eastern waters off Taiwan, a photo-identification survey was conducted in the waters near Shir-ti, Hualien, from May to September 2001. The adults of Risso's dolphins were categorized into two categories based on their skin color patterns: grayish-adults (GA) or whitish-adults (WA). Computer-assistant program, Finscan, was used to identify individuals. The half-weight index and the SOCPROG program were used to analyze association patterns of resighted animals. A total of 1,197 photos were taken and 670 individuals were identified. Ninety four (14%) identified dolphins were resighted. The distribution of association indices among 65 whitish-adults was significantly different from random distribution, but the association among 29 grayish-adults was not. In detail, the distributions of association indices among whitish-adults, either overall indices or individuals' maximum indices, leaned more toward high-level association than those among grayish-adults. In other words, stronger association among whitish-adults is suggested. Among 65 whitish-adults, 9 subgroups (6 pairs, 2 quadruplets, and 1 pentad) were assigned, while only 4 subgroups (3 triplets and 1 pair) were assigned among 29 grayish-adults. It has been suggested that the scarring of male Risso's dolphin might be more prevalent than females. The different association pattern between grayish- and whitish-adults of Risso's dolphins is likely to be consistent with the sex-different association pattern of bottlenose dolphins. This study suggests that whitish adults are more likely to be males and grayish adults are more likely to be females.